

# TEACHING A NEW ENVIRONMENTAL CULTURE

Anna Papadopoulou, Petros Lapithis

University of Nicosia, Department of Architecture, Sustainable Architecture Unit, Nicosia (Cyprus)

## 1. Context of Studio Unit within the Department of Architecture

### 1.1 Explanation of Fourth –Year Units

In the year 2009, the Department of Architecture of the University of Nicosia initiated a unique direction for its fourth-year students. Instead of a conventional thesis preparatory year of academic studies followed by the fifth year where the thesis project is to be generated, the faculty created two Units from which the students entering their fourth year would choose from. Each Unit has a distinct area of concentration which is expressed within the framework of its related studio.

In addition to the studio studies, each Unit is comprised of two supplementary courses where the students are exposed to theoretical and technical issues associated with Unit. The faculty members undertaking responsibilities within each Unit are strictly selected for their expertise, knowledge and experience in the Unit's area of study. In cases where no faculty member in the particular area of expertise was available, adjunct faculty was hired in a concerted attempt to maintain the highest standard of education within the Units.

Regardless of which Studio Unit the students are registered to, they are expected to follow all supplementary courses offered by both Units. This achieves a much-needed balance and uniformity among fourth-year studies.

The Studio Unit is a two-year commitment on behalf of both students and faculty. By their fifth-year, students are expected to have developed, expanded or isolated their fourth-year studio studies which will promote them to a successful thesis.

### 1.2 Sustainable Architecture Unit

The Studio offered within the Sustainable Architecture Unit is titled "Exploring Dimensions of Slow Life Filtered through Sustainable Design" and it shall be the main focus of this essay. As mentioned above, the Unit is comprised of the studio course and two associated supplementary courses. These courses are History and Theory of Sustainable Architecture and Sustainable Design Practices. The History and Theory course offers a comprehensive understanding of the principles of sustainable architecture within a historical and socio-political context, whereas the Sustainable Design Practices course provides the necessary technical background and mechanics to succeed in creating sustainable architecture.

### 1.3 Studio Members

In the Fall semester of 2009, seven students with an interest in sustainable design enrolled in the Sustainable Architecture Unit Studio and three transfer students were placed in the Studio based on their individual academic interests. The Studio and two supplementary courses were taught by a collaborative unit of an architect and a landscape architect, each approaching the issue of sustainability from different perspectives which include bioclimatic architecture and innovative design, ecological systems, sustainable urbanism, and socio-economic issues pertaining to sustainable living.

## 2. Philosophy and Perception

### 2.1 Slow Life and Sustainable Architecture

*Waking up late... rushing to get dressed... no time for breakfast... darting to the car or to the bus station... getting to work and then, rushing towards this and towards that... and then rushing some more...*

*What makes our life rush by so fast, what compels us to always be on the run? What inner need provides us with this momentum? Is it the need to compete, to achieve, to succeed?*

*Is the applied frequency emitted by our built environment subliminally feeding our impulse to rush?*

*We eat fast food, think fast thoughts, talk quickly to our friends and colleagues and inevitably, we create environments to match the fast rhythms of our lives.*

*We live fast lives and it is indeed quite likely that we design the appropriate architectural elements to accommodate our fast paces.*

Take a moment and stand still:

*Does food taste different when you chew while standing still? Does the ground under your feet feel softer? Does your breath feel cooler, stronger when taken in slowly and released slower still?*

*How does it feel to live slowly and enjoy all flavours of life? Savouring rather than devouring? Walking rather than running? Observing rather than judging?*

Is slow life a virtue that can be identified within western lifestyle? Does it need to be juxtaposed to fast life for it to have a discernable meaning? How does sustainable living compare to slow and to fast living?

*Does architecture have a measurable speed? How do we feel about the speed of our surrounding architecture? Can we identify slow and fast paces in our built environment?*

These thoughts, expressed in a stream of consciousness, act as springboards for the foundation of the Studio's philosophy. In turn, these questions become the impetus for an entire set of other issues requiring students to investigate interpretations of slow life and fast life within the context of sustainable architecture. However, in order to progress successfully to this level of investigation, each student is first encouraged to develop his or her own idea of what sustainability means.

Slow life is primarily concerned with the analysis and reading of architectural dimensions as a conceptual framework for the presentation of significantly new, original and meaningful architectural ideas. The Studio explores the theoretical, the philosophical, the physical and the aesthetic qualities of *slowness* from life to architecture, their potential for making space and the emotional capacity of the spaces they make.

## *2.2 Philosophical Positions*

Twenty years ago, sustainable architecture, rarely included in conventional academic curricula, was considered by most non-academics as a fad. Academics themselves looked upon it partly as a novelty, although most certainly a worthy cause. Nowadays, where sustainability appears firmly in a large number of academic institutions, believers consider it a must and cynics consider it fashionable. The future generations, however, regardless of their philosophical persuasion, will most definitely consider it a necessity. Slowness, whether of living or of design, is an intriguing concept whose elusive nature encourages creative thought and sets numerous sceptical filters benefitting good design. Identifying, observing and evaluating slow life raises issues of perception on time and accountability to nature in ways that are intrinsic to sustainable design.

Let us try to playfully visualize all-things-architectural to be the product of a specific muscle group in the designer's subconscious. The muscle group is comprised of other smaller muscles which we can identify as "creativity," "practicality," "technical accuracy," etc. We can visualize the muscle at its earliest appearance in the subconscious mind, while it is still somewhat atrophied. Upon attending architecture school, the muscle is exercised and gradually starts functioning as a unit, all members flexing and contracting in unison producing a well-shaped, efficient muscle. Sustainable design and environmental responsibility should, in theory, appear in the designer's subconscious as members of this "architectural" muscle group and together they have the potential to make the muscle stronger, more efficient and more resilient.

Since in the case of the Department of Architecture of the University of Nicosia, studies focusing on sustainable design officially enter the curriculum for the first time in the fourth year, regarding the principles of sustainability as part of the muscle group mentioned above may not be a realistic vision. In the course of a five year educational programme, it is probably safe to assume that the synergistic members of this muscle group have already been exercised into a shape by working together with method and system and any attempt for alterations may be met with resistance or with less than adequate results.

Consequently, the purpose of this Studio and the philosophical quest supporting the Sustainable Architecture Unit as a whole, given the circumstances of the Unit's conception, is not to enforce sustainable design and environmental responsibility as surrogate members of the muscle group. The purpose here is for these two principles to be the primary forces that help shape the muscle to fitness. They are not to be regarded as muscles, part of a larger unit of body, but as the weights, the dumbbells if you will, the design muscle is trained with in order to become more capable and resourceful. A timelier introduction of sustainable issues into the department's curriculum may be a more beneficial investment in the future of environmental culture in architecture schools, but such adaptations take time, patience and perseverance on behalf of academics and administrators alike.

### *2.3 Practical Extensions*

On a more tangible level, the mission of the Sustainable Architecture Studio is to elevate architecture and design to a coexistence of a harmonious and productive synergy of man, nature and the spirit of place. At the end of the studio journey, the students should be in a position to face their architectural identity in such a way where sustainable design will not represent an attachment or a supplement to their design principles, but both entities operate as an integrated process.

At the start of the studio journey, a foundation needs to be set where all attempts to define sustainability are put on the table and theories are taken into consideration. The global, multifaceted nature of sustainability is presented in such a way that students become aware of its ever-elusive definition and the range of disciplines it involves. This realization is inevitably faced by the students with some trepidation, so time is set aside for individual consultations helping students identify their own niche within the network of possibilities of sustainable design.

Sustainability is expressed not only as a sound building technique but as a deep socio-political issue that transcends generations, race and social class. The Studio projects themselves, aim to explore the interdependency of issues of environmental, social and economic sustainability where students are prompted to develop individual, critical positions with regards to the broad concept of sustainability and to extend and explore those positions through their architectural design process.

### *2.4 Graduates of the Sustainable Architecture Unit*

Graduating students of the Sustainable Architecture Unit will have attained the following skills:

- an ability to create architectural designs synergistic with nature that satisfy aesthetic and technical requirements
- a thorough knowledge of bioclimatic design, passive and active solar principles
- a basic knowledge of ecosystems and an ability to detect and evaluate them
- the ability to analyse a site in a social, structural, ecological and architectural context
- an adequate knowledge of the history and theories of architecture and the related arts, sustainable design, technologies and human sciences
- an adequate knowledge of urban design, planning and the skills involved in the process of environmental planning
- an understanding of the relationship between people, structures and ecology and an understanding of the need to relate buildings and spaces between them to human needs, scale and environmental sanctity
- an understanding of the profession of architecture and the role of the architect in society, his or her responsibility to nature and in particular, preparing briefs that take account of social and environmental factors
- an understanding of the methods of investigation and preparation of the brief for a design project
- an understanding of the structural design, constructional and engineering problems associated with building design
- the necessary design skills to meet building users' requirements within the constraints imposed by cost factors and building regulations
- an adequate knowledge of the industries, organizations, regulations and procedures involved in translating design concepts into buildings and integrating plans into overall planning

### **3. Assessment Methods and Criteria**

#### **3.1 Assessment Methods**

At the beginning of each semester students are given a course outline containing the class syllabus, attendance and grading policy. Projects and exercises are assigned to students each semester and their duration may range from one, two or three weeks, depending on the nature of the project. Although the number of projects assigned in the first semester may vary, the second semester is always the focus of a single project study.

Each students' grade is then determined by the maturity of problem analysis, research work, thinking process, creative generation of ideas, methods and methodology, application of mixed media skills, quality of final product, progress and attendance (see assessment criteria). Attendance is also taken into account as well as lecture and tutorial participation.

#### **3.2 Assessment Criteria**

- Problem analysis

Initially, the students are expected to develop a range of ideas, rather than a single concept, that demonstrate a creative response to the brief of the Studio Unit. Within the framework of the assigned brief, the students are to identify the nature and the requirements of the task at hand, irrespective of whether the tasks are determined by the brief or whether they are self-generated. Tasks must be prioritized and any limitations imposed by the assignment must be taken into account. The students are expected to provide full consideration of any intended audience of their work. In extension, they are expected to be in a position to identify and communicate problems and solutions in an appropriate matter. The proposed solutions must demonstrate a clear and purposeful initiative to the identified problems.

- Research

Students are expected to apply an enquiring approach to identify a range of visual and textual sources, evaluate the information gathered and proceed with appropriate selection. Within this process, students must demonstrate the ability to synthesize different types of visual and contextual information and to reveal how research has informed the project's progress.

- Conceptual development (generation of ideas)

Research will initiate and explore creative proposals as well as act as a vehicle to explore and develop a range of ideas that demonstrate a creative response to the research question as it is derived from the brief. The students are expected to foster links between their research, ideas and the intended audience.

- Working methods (methodology)

As with every academic assignment, students are advised to plan their time efficiently and to complete tasks with time to spare for review by fellow students and members of the faculty. The Studio Unit also encourages working in groups thus promoting skills in leadership and cooperation. Working in groups also helps students identify their personal strengths and weaknesses.

- Application of media skills

Students, who deal with their academic work maturely, will be able to develop the appropriate technical and manipulative skills to support the production of their project. They should also be able to demonstrate creativity in use of materials and methods as well as recognize and build on their individual strengths.

- Quality of final product (visual, written and oral presentation)

The quality of the presentations is important and it should aspire to be as high of standard as possible. The visual and aesthetic impact must demonstrate the connection between the finished work, the original idea and the intended audience.

Any written work to be submitted during the two-year course of the Studio Unit must be presented as articulately as possible, with coherent arguments and it must speak of the views and values earned during the research. Students are encouraged to constantly review their written work, as this is the only way to strive towards improvement.

Although oral presentations can be a nerve-wrecking experience, clarity and succinctness are of the essence. The students are encouraged during studio time to constantly practice their oral argument so as to achieve the best possible result.

## **4. Studio Description and Pedagogical Methods**

### ***4.1 Site Analysis***

After the initial influx of new information regarding the philosophy, mechanics and application of sustainable architecture, the students need a means to feel grounded. For this reason, the first order of business is to establish familiarity with the proposed site and with the climatic and geographical circumstances that are specific to it.

The site chosen is a multifaceted one since it is a National Park located in a suburb of Nicosia, flanked by a university campus, the Nicosia General Hospital, a commercial complex and some scattered residential districts. The paradoxical boundaries of this park make it a fascinating area of study with numerous possibilities and challenges whether the architectural intervention is a single building or a series of smaller, interrelated ones.

The students of the Studio are expected to develop their own brief – a good preparation for their self-directed thesis investigation which will follow in their fifth year of studies. Students in groups and individually, are called to examine the park in its entirety and to uncover its layers of complexity and potential. Shortcomings of the park are scrutinized and discussed in a productive and educational environment, while case studies are used to offer depth and perspective. During a guided class visit to the park, the students are called to investigate the site's literal characteristics but also to observe and document their own emotional responses.

Site analysis of the park and its surroundings is conducted in groups which produce a series of overlays pertaining to basic analytical issues such as land use, fauna and flora, circulation, geology and topography. Some groups may choose to examine issues of particular interest to them and produce relevant overlay maps. The finished product of base map and overlays is then scanned and made available to all students. Since this is the first contact some students experience with site analysis of this scale, they are encouraged to review the work of Ian McHarg and James LaGro. Once students are comfortable with the park's particulars, they are called to develop a masterplan for a theme park of their choice. This masterplan will serve them for the entirety of the year, since all their subsequent building interventions will be based on it.

### ***4.2 Lectures, Guests and Reviews***

Developing an understanding of design, maintenance and operation of the built environment while minimizing energy needs is a strong component of the Studio's objectives. These issues are presented to students through a series of in-studio lectures by faculty members, expert guests and students. Presentations are based on theory, case studies, technological advances and social issues. The basic framework of sustainable architecture, such as theory, ecology and technology is also offered to the students through the two supplementary courses they take as part of their fourth-year curriculum.

The Sustainable Architecture Studio fosters a culture of diversity of opinion and constructive criticism. Throughout the duration of the studio year, a series of guest lecturers and critics offer their time and advice to individual students, evaluating each project's merits, providing intriguing stimuli, feedback and helping each student elevate his or her work to the next level. All desk reviews with guest lecturers are done in the presence of at least one of the regular studio instructors to better communicating class objectives and to facilitate communication.

Guest critics have included artists specializing on ecosystems, practicing architects focusing on bioclimatics and digital design, and professors of relevant subjects from other local universities. Through their diverse educational background, the guest critics, some of whom studied and worked in countries such as Germany, Spain, Holland, England, USA and Greece, were also in a position to offer unique pedagogical perspectives.

Most studio days begin with a pinup of each student's work and his or her work is being discussed earnestly and constructively by fellow students and the instructors. As with all studios at University of Nicosia, there is a mid-semester review for all students where the entire faculty is invited as well as guest critics from other universities and professionals. These reviews prove to be an excellent means of coordinating progress in all same-year studios and they provide an opportunity for students to benefit from the experience of a large scale presentation.

## **5. Assignment Structure, Exercises and Projects for Fourth-Year Students (2009-2010)**

As mentioned in greater detail above, students are assessed on the level of concentration they exhibit, their rigour and tenacity. Their subsequent grade is determined by the maturity with which they tackle problem analysis, the depth and commitment of their research work, the clarity of their thinking process, their creativity in generating ideas, application of mixed media skills, the quality of final product, progress and attendance.

### **5.1 First Semester**

All projects assigned in the first semester have a distinct period of duration ranging from two to three weeks depending on the overall student workload. As a result, students are encouraged to approach these projects as charrettes and work under rigid deadlines.

- **Site Analysis Assignment**

The site during the academic year 2009-2010 was the national park of Athalassa, located on the outskirts of Nicosia. Analyzing the site is a process that takes up the better part of the first studio month. The first assignment is the production of the site's base map and site analysis overlays and it is entirely focused on group work. This proves to be a great opportunity for student socializing, particularly since some students may have recently transferred from other schools. Students also develop a sense for handling group dynamics and conflict resolution.

- **Theme Park and Masterplan**

Each student is expected to develop his or her own theme park based on his or her individual evaluation of the site's shortcomings, community needs and environmental betterment. The students choose a theme that is a challenge to them; one which they hope will lead them somewhere they have not been before. Students' individual tasks include Exploration of thematic dimensions of the concepts of *slow* and *fast* (keeping notes, drawings, samples, cut-outs and anything else appropriate) and Research and peer presentation on their chosen theme

During this time, students explore their theme in any creative way thinkable. This may include travelling, reading, drawing, talking, writing, film-making, performing, painting, writing stories and anything else which may or may not appear productive to their cause. The students are encouraged to take every opportunity to concentrate their efforts on comparisons and conclusions relating their theme and conceptual dimension of slow life. The projects will be generated from the creative observation and interpretation of the term *slow* either as a place, an object or an activity. The students' understanding and developed sensitivities will spawn much of their subsequent architecture. Their architecture must respond to environmental and sustainable demand, functionally as well as poetically.

The theme park is then translated to a masterplan in an appropriate scale. The plan is expected to exhibit mature decision-making with respect to citing functions and buildings as well as proper circulation provisions. No level of detail is expected, although free-hand mood shots or collages are encouraged to provoke students to imagine the attitude and the feel of the park.

- **Resting Points**

The first habitable space students are called to design is a series of resting points whose location has already been established in the masterplan. The resting points, intended as a spot where the park's visitors can take a break, represent the students' first attempt at a structure that follows basic principles of sustainable design. The design of the resting point structure must be such that it can be erected or installed at any point in the park, but can be adaptable and responsive to the particular location it is intended for. The concept driving its design must be related to the park's proposed theme and must be consistent with the findings of the investigation of *slow*. The structure's area must not exceed 10m<sup>2</sup> and all passive and active solar design

principles must be applied. The prototype must be responsive to climate, wind, sun and other particulars of the site and it must offer protection from the rain. Material investigation and selection is crucial.

- Structure 50-100m<sup>2</sup>

The second assignment presents the challenge of maintaining all bioclimatic lessons learnt in the previous exercise and applying them to a larger habitable area. The use of this structure, intended to be unique within the masterplan, promotes a use relevant to the park's chosen theme. Choice of materials must be dealt with more perseverance, bringing forth topics such as material longevity, potential toxicity, recycling and reusing. Energy-saving technology is investigated as well as other established technologies demonstrating the principles of sustainable architecture and construction.

- Structure 500m<sup>2</sup>

The final assignment before the end of the first half of the Studio is a structure larger in dimension to the two previous ones. The challenge of designing sustainably is now elevated to include architectural concerns such as access, entrance, space-use hierarchy, accommodation of auxiliary spaces, circulation and aesthetic acceptance within the natural landscape. Issues of cross-ventilation, orientation and exposure to natural sunlight are now examined more rigorously.

- Review

While working on the three building assignments, the students approach the park in a greater level of detail and inevitably identify issues that need to be addressed on the level of the masterplan. At the end of the third building assignment and prior to the final review of the first semester, the students are compelled to revisit their masterplan and make all necessary corrections and adaptations based on lessons learnt during three assignments.

The first semester final review panels present all major projects tackled during the semester, i.e. the masterplan and the three buildings as well as anything else the students deem necessary to their investigation. The panels are presented in A1 sheets and the students are instructed to make the panels as well-narrated as possible so as to require little or no explanation of the project's intentions.

## 5.2 Second Semester

The final assignment of the Studio is a semester-long project, intended to exhibit all skills acquired and practiced in the three projects of the first semester. A more complex building structure is expected to be generated responding to issues of site specificity and sustainable design. Since energy performance is conventionally less efficient for larger-scale buildings, students also have the option to produce a complex of smaller buildings and to tackle the challenge of a mini urban environment surrounded by protected nature.

Before addressing their intervention, whether that is a building or a complex of buildings, the students are assigned an exercise to affectionately known as "site reconnaissance." This exercise is intended to bring students physically and intellectually close to the site of their proposed intervention. They are required to section their proposed site to a grid where each square has the approximate dimensions of 2mX2m. Then the students are called to investigate and document each grid as a microcosm, isolating particular characteristics present in most of the grids and proposing a possible hierarchy. Through this exercise the students are encouraged to develop their own language of reading the landscape of their site. Their findings are then presented in class in the form of a conceptual model, stationary or interactive, or in two-dimensional images.

Upon considering the final building or structure, the following issues become relevant:

- Dealing with complex environmental problems emphasizing the planning of large-scale buildings.
- Students are compelled to use their knowledge and experience of different constructional and structural models, evaluate their aesthetic properties and choose aptly and with sensibility from a range of possible outcomes.
- Students are also encouraged to consider how the luminous and acoustic aspects of design can be manipulated to facilitate the activities to be sheltered and explores how they can control objective mood and convey symbolic values.
- Human and social impact of the built environment of the inhabitants of the project's particular environment.
- Contemporary perspectives on the relationship between human behaviour, designed environments and energy efficiency. In effect, the final project explores the implications of those relationships for the purpose and future direction of design education, design research and design practice.

- Students become aware of design factors affecting indoor comfort and explore concepts, structures and techniques that lie behind the realization of energy conscious design.
- The link between quality of life and energy consumption, the variation in fossil fuel resources and end-use energy in Cyprus.
- The role of renewable energies in reducing environmental impact.

## **6. Lessons Learnt and Alterations to the Studio Unit**

The work presented by most students at the end of the academic was of a particularly high and earned high praise from university faculty and colleagues from abroad. The ultimate success of the studio depends on engaging all students, irrespective of their academic background and individual accomplishments and shortcomings. With this in mind, the instructors of the Studio Unit identified certain issues with regards the studio curriculum that required revisiting.

The idea of completing four projects, those being the masterplan, resting points and two structures of varying dimensions ranged from challenging to practically unattainable, especially for transfer students whose background studies did not conform entirely to those of other students from the University of Nicosia. In fact, by the end of the academic year 2009-2010, all transfer students chose to withdraw from the Studio course shortly before the end-of-year review.

Students were advised to complete each of the individual projects in the finite time assigned, present it, then move on to the next project. Based on the comments collected during the review, the students were expected to improve on their own time the project that just been reviewed, in time for the final review. This proved a difficult task to coordinate, particularity for the transfer students, who seemed to be juggling more balls than the other students.

Another observation was brought forth in the course of one of the supplementary classes, namely the History and Theory of Sustainable Architecture. It transpired that fourth-year students in general had a particularly difficult time approaching literary research, compiling their findings and composing the final product. Their difficulties were accentuated by their inability to effectively use their individual research to instigate, promote and further any design concept. This was feared by members of the faculty to be a bad omen with respect to the students' thesis project to follow in the next year. It was thus decided to modify fourth-year studio studies to include a research requirement, whereby the student is called to conduct literary and visual research in his or her area of interest, compose it in proper format and show competency in implementing the findings in their design project. This addition to the curriculum is intended to act as a prelude to the fifth year of studies.

The curriculum for the forthcoming fourth-year students was thus altered to include one project in the course of the first semester instead of four. This structure must be habitable and must follow a rigorous process of well-documented research and adhere to principles of sustainable design, it must be site-specific and climate-responsive. Students are encouraged to produce a structure of approximately 300m<sup>2</sup>. The second semester curriculum did not undergo significant changes.

Another significant alteration in the academic year 2010-2011 was the absence of site. The Athalassa Park which had served as studio site for the previous academic year was forced to be abandoned because students who were keen in carrying out strictly urban investigations were unable to pursue their interest. This adjustment inevitably brought forth discontinuity in group site analyses. However, the instructors attempted to compensate by offering individual guidance to each student with respect to how to best analyse their chosen site.

## **7. Academic Year 2010-2011: Fourth-Year Studies and Fifth-Year Thesis Work**

Taking to heart all lesson learnt in the previous academic year and looking forward to implementing the new curriculum, the academic year of 2010-2011 commenced. Another novelty has been to merge fourth-year studio to fifth-year thesis studio, within the Sustainable Architecture Unit. In fact, students attending studio in their fourth and fifth year share the same premises, studio times, instructors, lectures and workshops. The students from both years benefit greatly from each other's presence and momentum. The fifth year students



are, of course, not obligated to attend the structured curriculum of the fourth-years, but those who did, found themselves in an overall advantageous position with regards to exposure on relevant topics and peer review.

The fifth year is devoted entirely to the development of a major design project, self-initiated and based on a strong sense of professionalism and design maturity. Students of the fifth year are encouraged to take further their architectural, cultural and theoretical preoccupations and test their architectural imagination. Students are expected to use their so far obligatory experience of different design, constructional and structural models and their aesthetic properties to choose aptly and with sensibility from the full range of possibilities. Individual guidance and recommendation of specific readings are given according to the students' chosen topic. Main concerns are research methods, study and analysis of design works and projects, appropriate presentation techniques, concept presentation, structural detailing and model making.

## **8. Conclusions and Future Improvements**

If the degree of success of the Sustainable Architecture Studio is measured by students' enthusiasm, then the Studio has surely been a triumph. During the course of two years taught, the students gradually became committed to the Studio's culture, as evidenced by the quality of their finished product, the degree of collaboration inspired among the group and the close bond fostered between the students and the instructors. Although the Unit extracts particularly hard work and dedication, a number of students who were not originally assigned to it, have consistently been requesting to transfer to it.

A diversity of thematic projects were taken on such as skate board and cycling facilities, urban safety, sustainable historic restoration, a dog park, a performance park, an educational centre, etc. A variety of subjects were tackled, including modularity, appropriate water purification technology, flexible occupancy and space reuse and issues of embodied energy. The Studio's standards were kept at a constantly challenging level and as a result, small number of students who were not able to keep up had to withdraw. Although all help was made available to them, the students decided on their own accord that they had more to gain by repeating the studio year.

The students were not only able to produce mature projects touching on all basic issues proclaimed by the Studio agenda, but most of them were able to greatly improve on their overall ability to solve complex architectural spaces and successfully present them in professional drawings and impressive computer renderings. This was partly the result of the instructors' perseverance and insistence that students should be handled as adults who are but a heartbeat away from professional employment.

An improvement the Studio will be striving towards in future years is to keep the slow life parameter closer and more apparent in the Studio process. Some students' research on slow life, regardless of how thoroughly it was initially executed, stayed in embryonic stages and was overshadowed by more tangible concerns such as those derived from sustainable architecture. Conversely, one student opted to view slow life as a product of comparison and took on a project focussing on fast life. This was a welcome extension of the *slow* investigation and showed healthy initiative and creativity.

The Sustainable Architecture Studio was not only a prolific course for students and a valuable experience for the instructors; it proved to be a useful platform for discussion regarding pedagogical targets and techniques for fourth-year studios at the University of Nicosia. Since the completion of the 2011 academic year, the university's faculty has been using the knowledge and lessons learnt from the Studio as guidance in the objectives and planning of future studios. More importantly, the students' high level of product has become a datum on which students' projects are now being evaluated.

## **9. Student work**

As a means of further exhibiting the Studio's achievements, the two-year progress of a Unit student is presented (Figures 9.1-9.5). Name of student: Alexandros Postekkis

Title of 1st year Unit Work: Awakening the Senses

Title of 2<sup>nd</sup> year Unit Work and Thesis Project: Incremental Revitalization of Abandoned Industrial Buildings

Figure 9.1 Resting Point considered through vision and hearing: Two entrances are created according to existing paths, as a welcoming gesture. The axis leads to the heart of the enclosure where sensations are expected to be heightened.

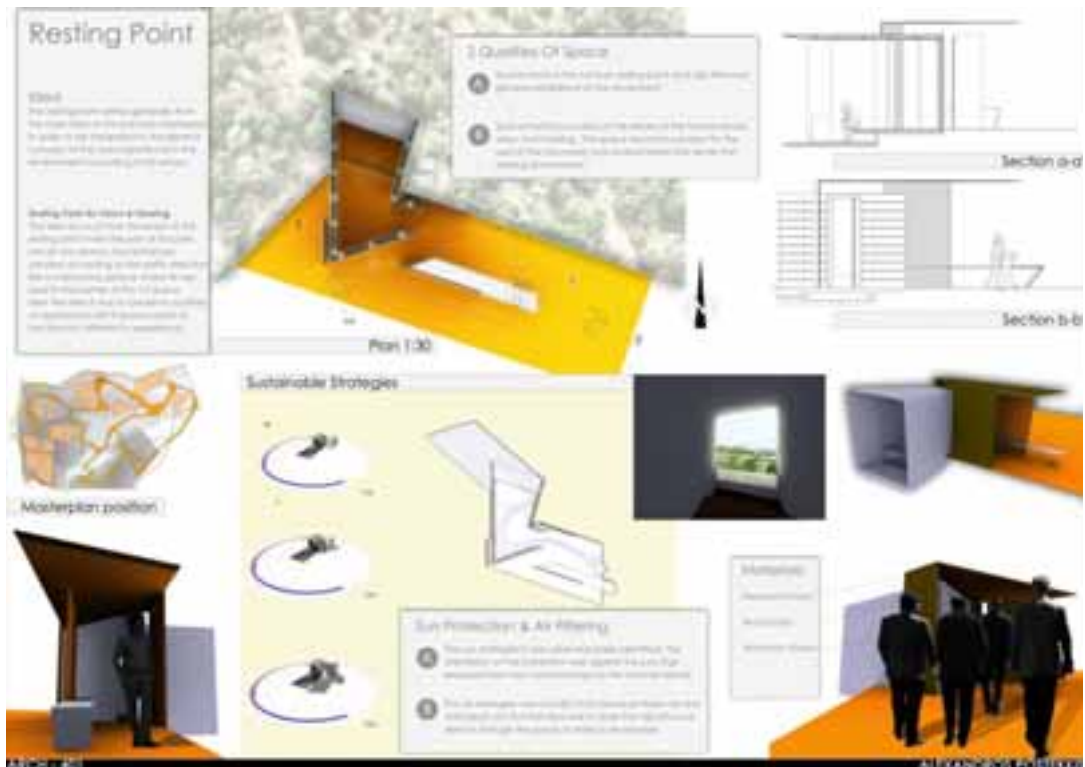
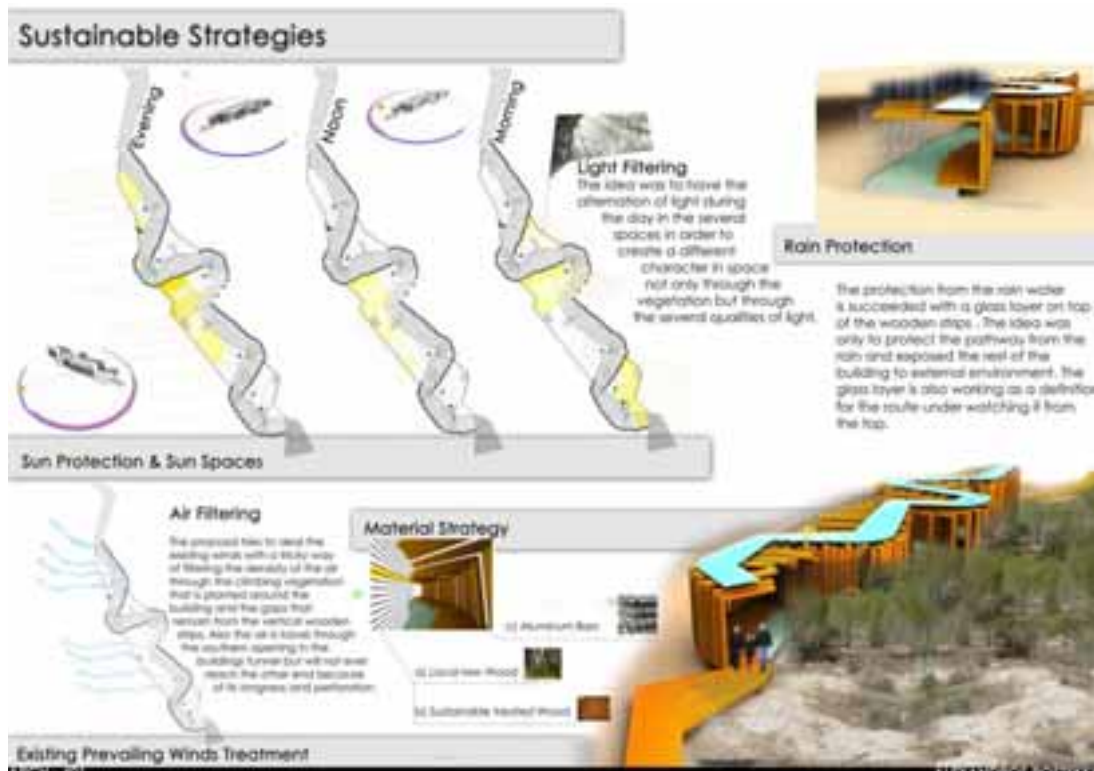


Figure 9.2 The Experience Route: This structure is situated in on an area of high vegetation in order to synthesize to proper environment that will enhance the sense of touch, taste and smell. These senses are triggered through a series of events experienced through the path's route.





**Figure 9.5 Thesis Project: Incremental Revitalization of Abandoned Industrial Buildings**

The project explores the incremental transformation of abandoned industrial buildings attempting to activate and reintegrate these structures in the socioeconomic system according to emerging needs of the industry. Through examples like the Duisburg Park as well as important conceptual theories of strategic reuse, the proposed building will undergo a gradual transition of total transformation whilst maintaining the memory of former use and significance. The aim of this project is to promote a smooth transition from the building's previous use to its new function by always maintaining a piece of "memory" of function. Through this reuse of space, a sustainable strategy arises, where cost efficiency and recycling of an existing structure through awakening building's and people's memory, becomes a focus of design development.



Cordinator: Petros Lapithis, Phd

Lecturers: Anna Papadopoulou, Adonis Kleanthous, Zenon Sierepeklis

Visiting Lecturers: Aldo Kroese, Kika Ioannou, Tonia Sophokleous, Eleonore ZippeliusMaria Eftychi, Demetris Economides, Giannos Orfanos, Giorgos Theocharous, Marga Jann, Katerina Neofitidi

Students: Christos Hadjivasiliou, Chara Andreadi, Christina Demetriou, Christos Tremetousiotis, Demetra Kouri, Katerina Michaelidou, Ladan Lajevardi, Loukia Agathokleous, Maria-Ermina Stephanidou, Nicholas Georgiades, Yuliya Dzyuban, Alexandros Postekkis, Markos Hadjimarkou, Mikaela Kotzia, Sophia Neocleous, Vrahimis Moutiris, Nasim Amini, Christophoros Christophorou.